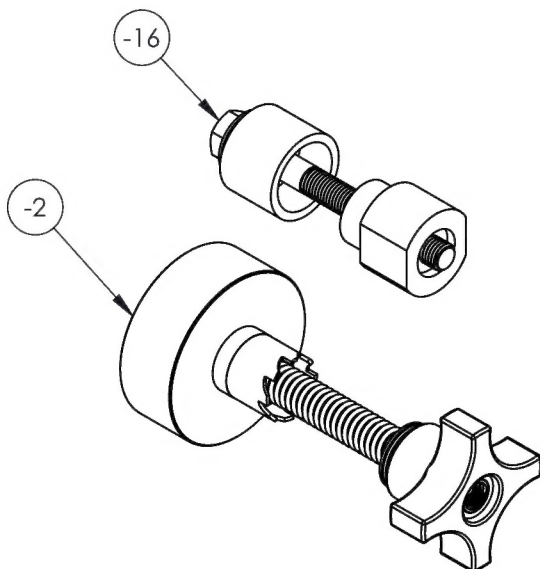


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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1A		CH'D TITLEBLOCK & REVISION BLOCK. CH'D REVISIONS TO NUMERICAL, CORRECTED VIEWS & LABELED ALL SECTION VIEWS. -1 ADDED DETAIL A TO CLARIFY TAPER.	9/30/09	RJC	
2	15-0025	-1 CH'D DIM. WAS Ø.498 TAPER IS .498 +.000-.005, WAS Ø.501 P.F. -3 IS .5016-.5012, WAS .750 IS .75 +.000 -.010, WAS Ø.750 IS (Ø.750). -3 CH'D DIMS WAS REAM Ø.500 PF TO ITEM -1 IS LIMITS Ø.5000-.5007, WAS Ø2.00 IS (Ø2.000). -7 IMPROVED TOOTH DESIGN. -16 DELETED -23 & -25 ADDED CORRECT NUMBER OF -11 AND -13 TO ASSEMBLY IN BOM. -27 CH'D DIAMETER FOR RETAINING RING WAS Ø.263 IS .250 +.003 -.000.	1/30/2015	RJC	JAG



ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
	1		-1		SHAFT	STRESSPROOF		2
	X		-2	1	DAMPER BEARING CUTTER TOOL ASSY			3
	1		-3		HANDLE	6061 T6		4
	1		-7		CUTTER	01		5
	1	B/O	-10		SPRING	STEEL	Ø.437 O.D. X Ø.054 WIRE X 2, 15.54 LBS./IN. (MCMaster-CARR #9657K122)	1
2	2	B/O	-11		WASHER	STEEL	(APPLIED INDUSTRIAL #TRA-512)	3, 6
1	1	B/O	-13		BEARING	STEEL	(APPLIED INDUSTRIAL #NTA-512)	3, 6
	1	B/O	-15		KNOB		(ESSENTA COMPONENTS #DK-55)	1
X			-16	1	REMOVAL & INSTALLATION TOOL ASSY			6
1			-17		R&I ADAPTER	STRESSPROOF		7
1		B/O	-19		EXTERNAL RETAINING RING	STEEL	Ø5/16 (MCMaster-CARR #97431A310)	1
1			-21		CAP	6061 T6		8
1			-27		BOLT	STEEL GRD 5	5/16-24 UNF X 3 (MCMaster-CARR #91247A122) MOD.	9
ASSY -16	ASSY -2							



TITLE  
**DAMPER BEARING CUTTING TOOL**

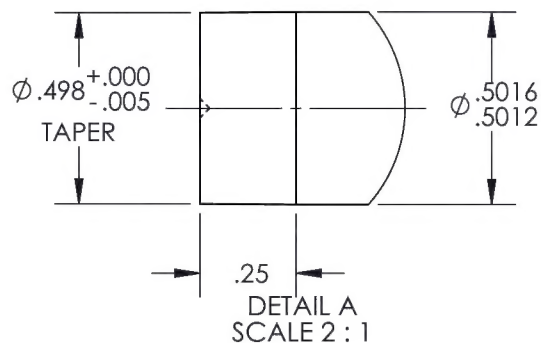
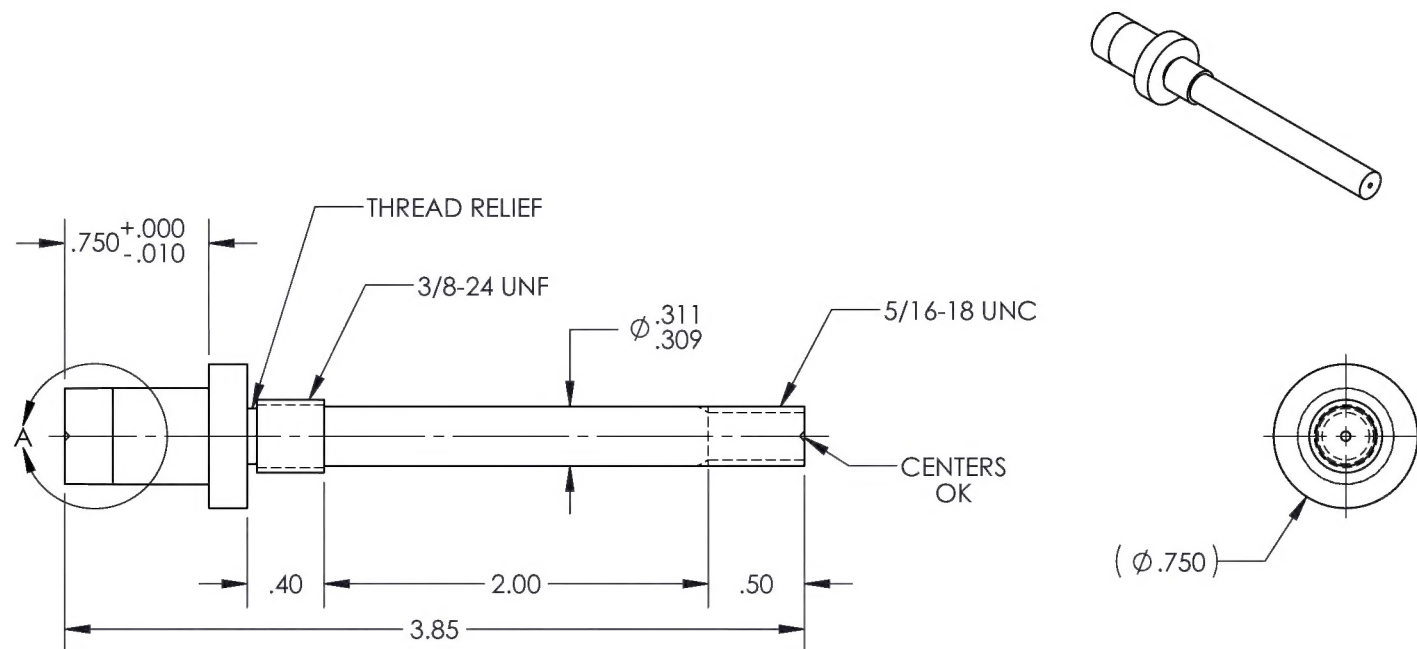
DWG NO. **RB877528-5**

REV  
**2**

MAT'L	DRAWN BY: CLOUGH
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>J Gilbert</i>
.XXX ± .005	HEAT TREAT
.XX ± .01	FINISH
.X ± .1	SPEC
1. BREAK ALL SHARP EDGES .015 x 45°	
OR .015R	
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL
	MD 500D
SCALE 1:1	DATE 1/30/2015
	SHEET 1 OF 9

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		-1 ADDED DETAIL A TO CLARIFY TAPER.	9/30/09	RJC	
2	15-0025	-1 CH'D DIM. WAS Ø.498 TAPER IS .498 +.000-.005, WAS Ø.501 P.F. -3 IS .5016-.5012, WAS .750 IS .75 +.000 -.010, WAS Ø.750 IS (Ø.750).	1/30/2015	DPD	JAG

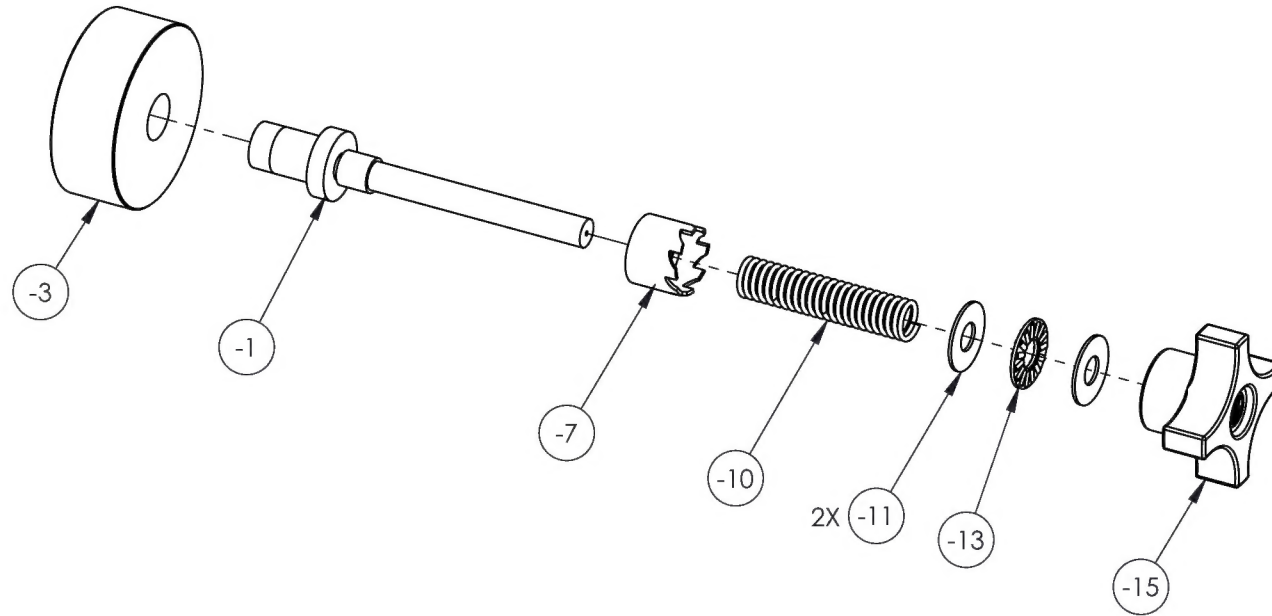


(-1)  
SHAFT

<b>DART</b> AEROSPACE	
TITLE <b>DAMPER BEARING CUTTING TOOL</b>	
DWG NO. <b>RB877528-5-1</b>	REV <b>2</b>
MAT'L STRESSPROOF	DRAWN BY: <b>COLE</b>
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D Weil</i>
.XXX ± .005 FRACTIONS ± 1/8	HEAT TREAT
.XX ± .01 ANGLES ± 5°	FINISH BLACK OXIDE
.X ± .1	SPEC
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	MD 500D
SCALE 1:1	DATE 6/28/2000
SHEET 2 OF 9	

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REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL

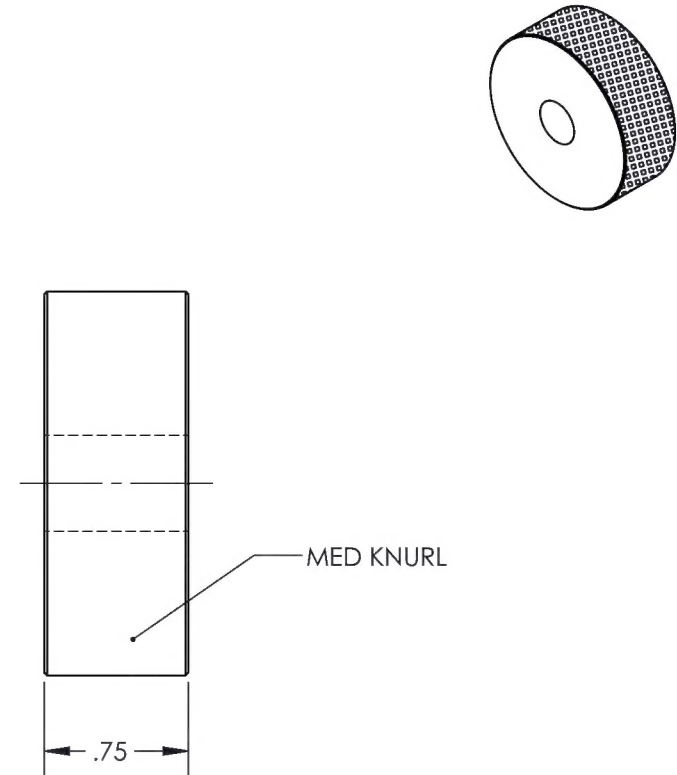
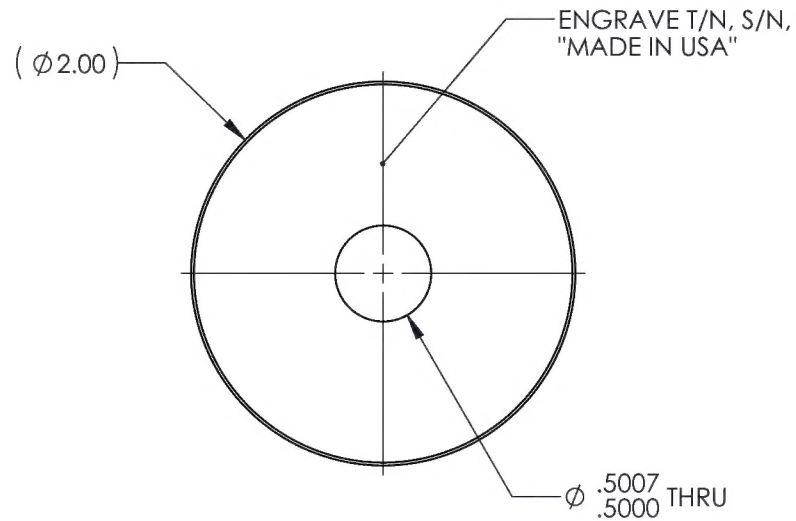


(-2)  
DAMPER BEARING CUTTER TOOL ASSY

<b>DART AEROSPACE</b>	
TITLE <b>DAMPER BEARING CUTTING TOOL</b>	
DWG NO. <b>RB877528-5-2</b>	REV <b>2</b>
MAT'L	DRAWN BY: <b>COLE</b>
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D Weil</i>
.XXX ± .005	HEAT
.XX ± .01	TREAT
.X ± .1	FINISH
ANGLES ± 5°	SPEC
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	<b>MD 500D</b>
SCALE <b>1:1</b>	DATE <b>6/28/2000</b>
SHEET 3 OF 9	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	15-0025	-3 CH'D DIMS WAS REAM Ø.500 PF TO ITEM -1 IS LIMITS Ø.5000-.5007, WAS Ø2.00 IS (Ø2.000).	1/30/2015	DPD	JAG

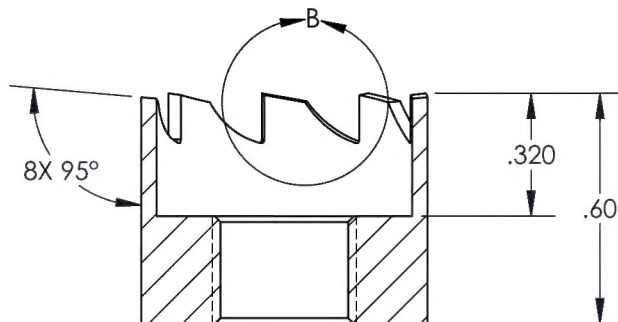
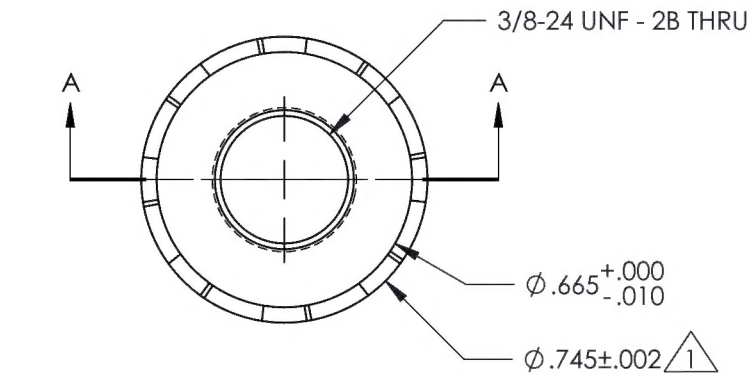


(-3)  
HANDLE

<b>DART AEROSPACE</b>	
TITLE <b>DAMPER BEARING CUTTING TOOL</b>	
DWG NO. <b>RB877528-5-3</b>	REV <b>2</b>
MAT'L 6061 T6	DRAWN BY: COLE
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D Weil</i>
.XXX ± .005 FRACTIONS ± 1/8	HEAT TREAT
.XX ± .01 ANGLES ± 5°	FINISH BLACK ANODIZE
.X ± .1	SPEC MIL-A-8625F, TYPE II, CLASS II
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	MD 500D
SCALE 1:1	DATE 6/28/2000
SHEET 4 OF 9	

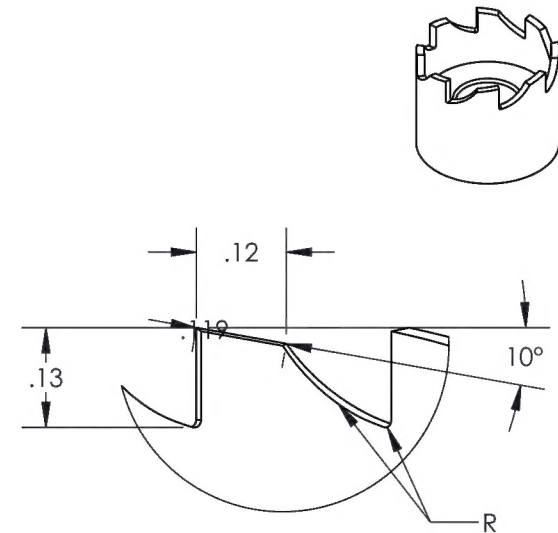
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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		-7 RADIAL ANGLE INCREASED FROM 2° TO 5° TO IMPROVE OPERATION.	2/19/2004		
2	15-0025	-7 IMPROVED TOOTH DESIGN.	1/30/2015	DPD	JAG



SECTION A-A

(-7)  
CUTTER



DETAIL B  
SCALE 4:1  
TYP TO 8 TEETH

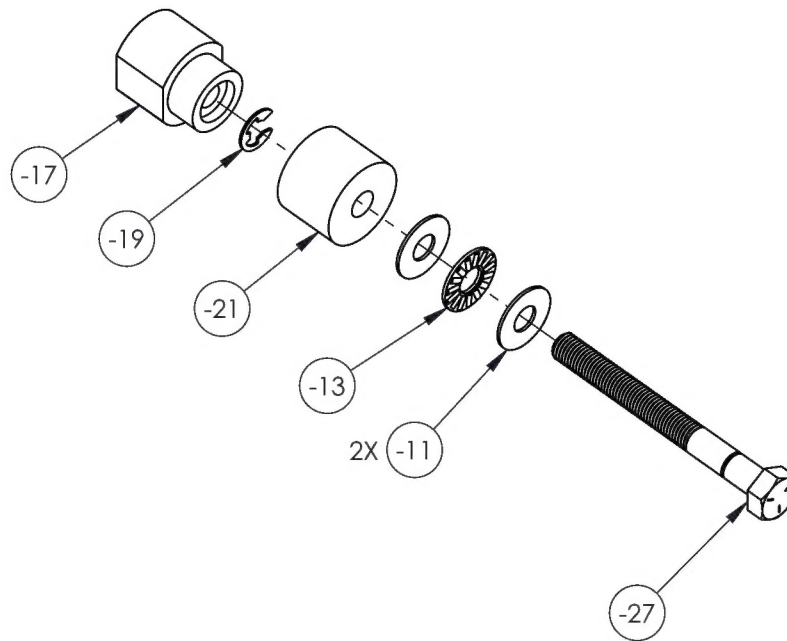
NOTE:

- 1 TURN O.D. TO  $\phi .755$ , HEAT TREAT TO RC 50-60, GRIND TO FINAL DIMENSION AFTER HEAT TREAT, NO COATING.

<b>DART</b> AEROSPACE	
TITLE <b>DAMPER BEARING CUTTING TOOL</b>	
DWG NO. RB877528-5-7	REV <b>2</b>
MAT'L 01	DRAWN BY: COLE
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D Weil</i>
.XXX $\pm .005$	HEAT TREAT SEE NOTE 1
.XX $\pm .01$	FINISH SEE NOTE 1
.X $\pm .1$	SPEC
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	MD 500D
SCALE 2:1	DATE 6/28/2000
SHEET 5 OF 9	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	15-0025	-16 DELETED -23 & -25 ADDED CORRECT NUMBER OF -11 AND -13 TO ASSEMBLY IN BOM.	1/30/2015	RJC	JAG



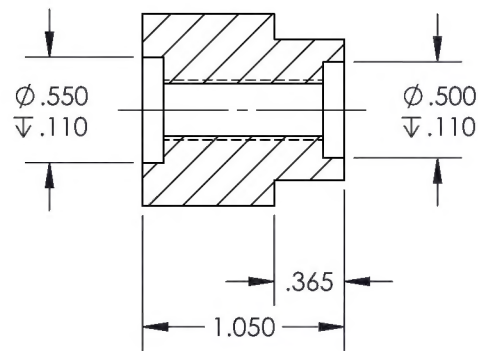
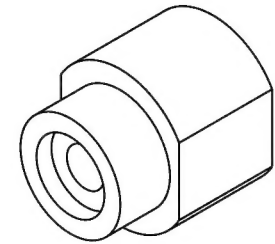
-16

REMOVAL & INSTALLATION TOOL ASSY

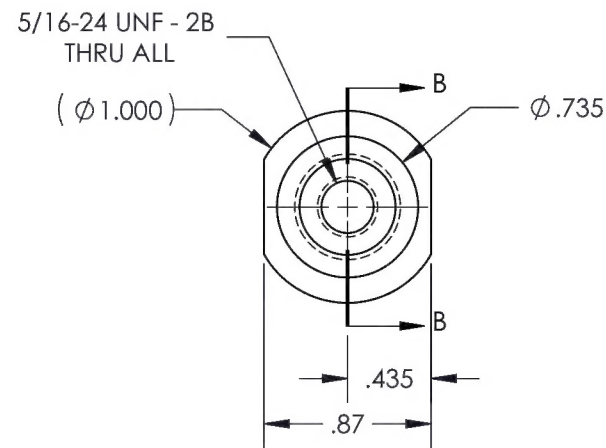
<b>DART</b> AEROSPACE	
TITLE <b>DAMPER BEARING CUTTING TOOL</b>	
DWG NO. RB877528-5-16	REV <b>2</b>
MAT'L	DRAWN BY: CLOUGH
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>J Gilbert</i>
.XXX ± .005	HEAT
.XX ± .01	TREAT
.X ± .1	FINISH
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	SPEC
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL MD 500D
SCALE 1:2	DATE 1/30/2015
SHEET 6 OF 9	

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REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL
				APPROVED



SECTION B-B



(-17)

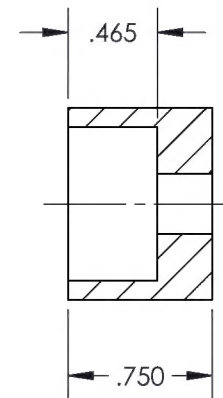
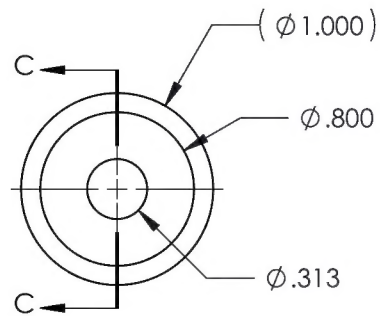
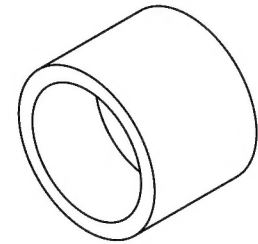
R&I ADAPTER

<b>DART</b> AEROSPACE	
TITLE <b>DAMPER BEARING CUTTING TOOL</b>	
DWG NO. <b>RB877528-5-17</b>	REV <b>2</b>
MAT'L STRESSPROOF	DRAWN BY: CLOUGH
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>J Gilbert</i>
.XXX ± .005 FRACTIONS ± 1/8	HEAT TREAT
.XX ± .01 ANGLES ± 5°	FINISH BLACK OXIDE
.X ± .1	SPEC
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	MD 500D
SCALE 1:1	DATE 1/29/2015
SHEET 7 OF 9	



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REVISIONS			
REV	ECR	DESCRIPTION	DATE
			INITIAL
			APPROVED



SECTION C-C

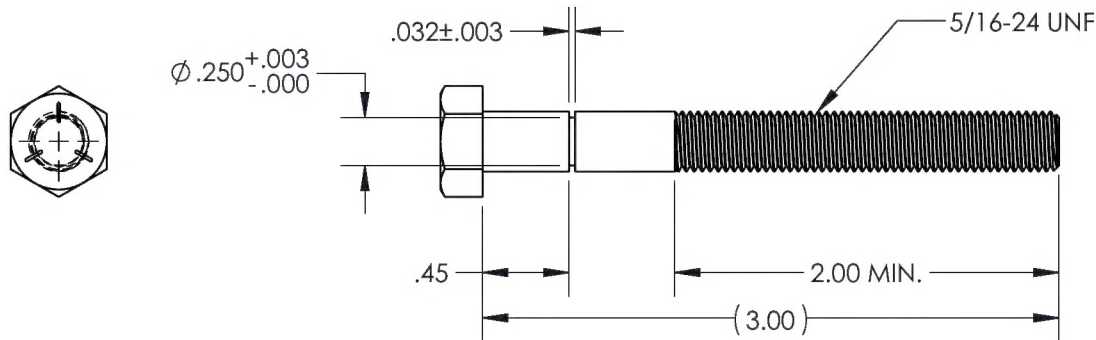
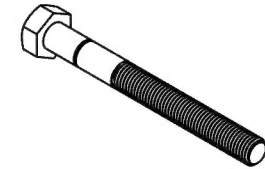
(-21)  
CAP

<b>DART</b> AEROSPACE	
TITLE <b>DAMPER BEARING CUTTING TOOL</b>	
DWG NO. RB877528-5-21	REV <b>2</b>
MAT'L 6061 T6	DRAWN BY: CLOUGH
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>J Gilbert</i>
.XXX ± .005 FRACTIONS ± 1/8	HEAT TREAT
.XX ± .01 ANGLES ± 5°	FINISH BLACK ANODIZE
.X ± .1	SPEC MIL-A-8625F, TYPE II, CLASS II
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	MD 500D
SCALE 1:1	DATE 1/29/2015
SHEET 8 OF 9	



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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	15-0025	-27 CH'D DIAMETER FOR RETAINING RING WAS Ø.263 IS .250 +.003 -.000.	1/30/2015	RJC	JAG



(-27)

BOLT

<b>DART</b> AEROSPACE	
TITLE <b>DAMPER BEARING CUTTING TOOL</b>	
DWG NO. <b>RB877528-5-27</b>	REV <b>2</b>
MAT'L STEEL GRD 5	DRAWN BY: CLOUGH
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>J Gilbert</i>
.XXX ± .005 FRACTIONS ± 1/8	HEAT TREAT
.XX ± .01 ANGLES ± 5°	FINISH BLACK OXIDE
.X ± .1	SPEC
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	MD 500D
SCALE 1:1	DATE 1/29/2015
SHEET 9 OF 9	